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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/627,738	07/28/2003	Arie Ariav	26537	3809

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EXAMINER	
GONZALEZ, JULIO C	

ART UNIT	PAPER NUMBER
2834	

DATE MAILED: 08/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/627,738	ARIAV, ARIE	
	Examiner	Art Unit	
	Julio C. Gonzalez	2834	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *06 June 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-4,8-15 and 18-20* is/are rejected.

7)☒ Claim(s) *5-7,16 and 17* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *28 July 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Priority

1. If applicant desires benefit of a previously filed application under 35 U.S.C. 119(e), specific reference to the earlier filed application must be made in the instant application. For benefit claims under 35 U.S.C. 119(e), 120, 121 or 365(c), the reference must include the relationship (i.e., continuation, divisional, or continuation-in-part, provisional) of the applications. This should appear as the first sentence(s) of the specification following the title, preferably as a separate paragraph unless it appears in an application data sheet.

This time period is not extendable and a failure to submit the reference required by 35 U.S.C. 119(e) and/or 120, where applicable, within this time period is considered a waiver of any benefit of such prior application(s) under 35 U.S.C. 119(e), 120, 121 and 365(c). A benefit claim filed after the required time period may be accepted if it is accompanied by a grantable petition to accept an unintentionally delayed benefit claim under 35 U.S.C. 119(e), 120, 121 and 365(c). The petition must be accompanied by (1) the reference required by 35 U.S.C. 120 or 119(e) and 37 CFR 1.78(a)(2) or (a)(5) to the prior application (unless previously submitted), (2) a surcharge under 37 CFR 1.17(t), and (3) a statement that the entire delay between the date the claim was due under 37 CFR 1.78(a)(2)

or (a)(5) and the date the claim was filed was unintentional. The Director may require additional information where there is a question whether the delay was unintentional. The petition should be addressed to: Mail Stop Petition, Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1, 9, 11 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable by McLean (US 3,563,245) in view of Brockway et al (US 6,033,366).

McLean discloses a method/apparatus having a transducer 6 for sensing pulsations of the subjects' cardiovascular system, more specific the heart 3 (see figure 2) and converting the pulsations into electrical energy (see abstract; column 2, lines 63-69; column 3, lines 33-37).

However, McLean does not disclose using pulsations by contacting the external surface of a subjects' cardiovascular system.

On the other hand, Brockway et al teaches for the purpose of more easily replacing transducers that a transducer 32 contacts the external surface of a heart (see figure 7) or vein (see figure 6).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to design a method/apparatus for generating electricity using the cardiovascular system as disclose by McLean and to use the teachings of Brockway et al for the purpose of more easily replacing transducers.

4. Claims 2, 3, 8, 12, 13 and 18 rejected under 35 U.S.C. 103(a) as being unpatentable over McLean and Brockway et al as applied to claims 1 and 11 above, and further in view of Kieval et al (US 6,850,801).

The combined apparatus discloses all of the elements above. However, the combined apparatus does not disclose using the cardiovascular system's pulsations to pump a magnetic liquid with respect to an electrical coil to generate electricity.

On the other hand, Kieval et al discloses for the purpose of reducing and preventing damage to carotid nerves and tissues, using pulsations of the cardiovascular system to drive baroreceptors (column 3, lines 64-67) and using magnetic fluid 222 (column 15, lines 1-3), which interacts with a coil 224 (see figure 10B) to create a magnetic field (column 14, lines 57-62). Kieval et al

teaches inherently that the interaction of the coil 224 and the magnetic fluid 222 is able to create electricity by using lead 226 since it is discloses that the coil 224 an the magnetic fluid 222 create a magnetic field. It is also disclosed that the device may be placed next to an artery (column 3, lines 49-53).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to design the combined method/apparatus as disclose above and to use a magnetic fluid interacting with a coil for the purpose of reducing and preventing damage to carotid nerves and tissues as taught by Kieval et al.

5. Claims 10 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over McLean and Brockway et al as applied to claims 1 and 11 above, and further in view of Wen (US 3,456,134).

The combined apparatus discloses all of the elements above. However, the combined apparatus does not disclose using a piezoelectric device being driven by pulsations of the cardiovascular system.

On the other hand, Wen discloses for the purpose of increasing the output power of resonators that a crystal 10 moves in response to body movement and due to the resonating characteristics, electricity is generated (see figures 2, 4 & column

2, lines 20-28). Moreover, it is disclosed that the crystal 10 is a piezoelectric device (column 1, line 66).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to design the combined method/apparatus as disclose above and to modify the invention by using a piezoelectric device being driven by body motion for the purpose of increasing the output power of resonators as disclosed by Wen.

6. Claims 4, 14 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over McLean, Brockway et al and Kieval et al as applied to claims 2 and 11 above, and further in view of Herman, Jr.

The combined method/apparatus discloses all of the elements above. However, the combined method/apparatus does not disclose that the magnetic liquid is pumped in a closed-loop path enclosed by an electrical coil.

On the other hand, Herman, Jr. discloses for the purpose of controlling effectively the movement of liquids in containers, using magnetic fluid being inside a closed-loop path device 70, which is enclosed by electrical coil 81 (see figure 7) and the fluid moves inside device 70 by inducing a magnetic field (see figure 6 & column 9, lines 8-27, 53-58).

Also, it is discloses that the fluid can be magnetic fluid (column 14, lines 3-5) and closed-loop system can be implemented in the field involving cardiovascular systems such as the heart and arteries (column 11, lines 43-45).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to design the combined method/apparatus as disclosed above and to use the movement of fluid in a closed-loop system interacting with a coil for the purpose of controlling effectively the movement of liquids in containers as taught by Herman, Jr.

Response to Arguments

7. Applicant's arguments with respect to claims 1-4, 8-15, 18-20 have been considered but are moot in view of the new ground(s) of rejection.

Allowable Subject Matter

8. Claims 5, 6, 7, 16 and 17 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

With respect to claim 5, the prior art fails to disclose that the closed-loop path is partly defined by a displaceable member mechanically coupled to the part of the cardiovascular system so as to be cyclicaly displaced by the pulsations of the subject's cardiovascular system.

With respect to claims 6, 7, such claims are dependant on claim 5.

With respect to claim 16, the prior art fails to disclose that annular liquid chamber is defined by an outer, circular stiff wall and an inner circular flexible wall, mechanically coupled to the subject's cardiovascular system by one or more loops encircling both, the subject cardiovascular system and the inner, circular flexible wall.

With respect to claims 17, it is dependant on claim 16.

Conclusion

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is

filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Julio C. Gonzalez whose telephone number is 571-272-2024. The examiner can normally be reached on M-F (8AM-5PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Darren Schuberg can be reached on 571-272-2044. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Julio C. Gonzalez
Examiner
Art Unit 2834

Jcg

July 27, 2005

DARREN SCHUBERG
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800